

AMENDMENTS TO THE DRAWINGS

3. Please insert amended Figure 4 (enclosed) in which element 62 (electronic receptacle) has been replaced as element 59 to correspond with paragraph [0046] as amended.

REMARKS

1. Reconsideration of the application is respectfully requested.
2. The abstract has been amended to address Examiner's concerns.
3. Paragraphs 0037 and 0039 have been amended to reference the correct figures thereby addressing Examiner's concerns with respect to the same.
4. Paragraph 0046 has been amended to renumber the electronic receptacle as element number (59). An amended Figure 4 is enclosed herein reflecting a corresponding change of element (62) to element (59).
5. Examiner has rejected claims 1-3 and 6 under 35 USC 103(a) as unpatentable over Farrell, in view of Waterman. Applicant respectfully submits that the requisite standard required to establish a rejection for obviousness having regard to MPEP and the relevant case law has not been met:

The fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re: Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed Cir. 1990)...Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so".

[MPEP 2143.01].

It is respectfully submitted that while Farrell and Waterman could conceivably be combined to produce the presently claimed apparatus of claim 1, there is no teaching or suggestion in Farrell to incorporate the relevant elements of Waterman. In fact, having regard to the operation of the Farrell

apparatus it is suggested that the elements of Waterman cited by Examiner could not be combined into the Farrell apparatus to produce a functional probe.

Applicant also submits that the Farrell apparatus is incapable of an internal power source, an internal microprocessor or internal control means. Farrell teaches the use of cables to run power to the conductive element (thereby utilizing an external power source), a temperature measurement device, the use of a microprocessor, the use of a resistance control means and the use of a resistance measuring device. However, Farrell only teaches the internal use of the temperature measurement device which is placed adjacent to the conductive element.

Examiner refers specifically to page 7, lines 18-20 which describe the cables running to the conductive element. Farrell teaches cables running from the conductive element to an electrical connector (element 20). Farrell teaches the need to either insulate the cables or to segregate them from the temperature control medium (page 8, line 21). There is no discussion of an internal power source and none of the figures depict an internal power source. In fact, having regard to internal configuration of the Farrell probe, and to the constraints presented by the presence of the temperature control medium, an internal power source would not be feasible for the Farrell probe. One of the advantages to the presently claimed invention is the ability to have a self contained remote probe that can transmit wireless information [see paragraph 0040].

Farrell states that the electrical connector is connected to resistance and temperature measurement and controller instruments (page 8, line 5). There is no statement or discussion of the resistance and controller instruments being contained within the probe. It would be very difficult to internalize these components because of the physical constraints (both excess heat and physical space) imposed on the probe by the presence of the internal temperature control medium.

Waterman teaches the use of a sealed corrosion probe with a number of internal elements, including a power source, microprocessor and control means, however there is no suggestion or motivation contained within Farrell to modify the Farrell probe in light of the teachings of Waterman.

6. Examiner has rejected claims 4 and 5 under 35 USC 103(a) as being unpatentable over Farrell in view of Waterman and Stover. Claims 4 and 5 depend on claim 1, and it is respectfully submitted that if Examiner holds claim 1 not to be obvious in light of the arguments presented above, then accordingly claims 4 and 5 are also not obvious in light of Farrell and Waterman. It is further submitted that there is no suggestion or teaching in either Farrell or Waterman to incorporate the use of a pressure sensor as disclosed in Stover. In particular, neither Waterman nor Farrell teach that fluctuating pressure is a variable that can affect the accuracy of the corrosion calculations. The description of the presently claimed invention specifically identifies this issue [see paragraph 0039]. It is submitted that because of the lack of any mention of the effect of pressure levels in either Farrell or Waterman, Examiner cannot satisfy the requirement that there must be some suggestion or motivation to incorporate the teaching of Stover with respect to the use of a pressure sensor.

7. Examiner has rejected claims 7 and 8 as being dependent on a rejected base claim. Claims 7 and 8 depend on claim 1, and it is respectfully submitted that if Examiner holds claim 1 not to be obvious in light of the arguments presented above, then accordingly claims 7 and 8 are also not obvious in light of Farrell and Waterman.

CONCLUSION

In view of the foregoing remarks and amendments, it is respectfully submitted that this application is in condition for allowance and allowance thereof is respectfully requested.

Respectfully submitted,

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By: 

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Attachments:

1. Petition for Two Month Extension.
2. Abstract.
3. Credit Card Payment Form.
4. Corrected Drawings.